



DEPARTMENT OF TRANSPORTATION
MATERIALS TRANSPORTATION BUREAU
WASHINGTON, D.C. 20590

70721

49 CFR Parts 171, 172, 173, 174, 175, 176, 177, 178

[Docket No. HM-161; Amdt. Nos. 171-51, 172-56, 173-134, 174-36, 175-10, 176-10, 177-47, 178-60]

Detonators and Detonating Primers

AGENCY: Materials Transportation Bureau (MTB), Research and Special Programs Administration, DOT.
ACTION: Final rule.

SUMMARY: These amendments prescribe appropriate shipping descriptions and hazard class designations for detonators and detonating primers. The need for this action is the present lack of proper shipping descriptions for many small explosive devices and the fact that the present division of blasting caps into Class A and Class C explosives is not done on a technically sound basis from a safety standpoint. The term "commercial detonators" as proposed in the notice is revised to read "detonators" in order to accommodate shipments made commercially and by military. The reference to the IME standard has been updated to acknowledge the latest revision of the standard. Also, § 173.87 has been revised for clarity. A grandfather clause allowing the transportation of detonators and detonating primers under certain conditions has been added in this final rule.

EFFECTIVE DATE: January 1, 1980.

FOR FURTHER INFORMATION CONTACT: Charles W. Schultz, Technical Division, Office of Hazardous Materials Regulation, Department of Transportation, Washington, D.C. 20590, telephone 202-426-2311.

SUPPLEMENTARY INFORMATION: On May 4, 1978, the MTB published a notice of proposed rulemaking under Docket HM-161 in the *Federal Register* (43 FR 19242) regarding commercial detonators and detonating primers. Also, on September 25, 1978, a meeting was held with representatives of the Institute of Makers of Explosives (IME), who had requested an extension of the time allowed for filing comments.

Several comments were received on the proposed rulemaking and all have been carefully evaluated. Several commenters stated that limiting the initiators described in the notice to "commercial" devices creates problems for the military because some devices such as blasting caps are shipped both commercially and by the military. The MTB acknowledges this fact with respect to devices identified in the notice as "commercial detonators" and this amendment contains revisions which change the definition and shipping description so that such devices may be shipped by both military and commercial interests without any conflict in terminology.

Several commenters indicated that the proposed revision to § 175.320 was not consistent with § 172.101 concerning quantities allowed aboard aircraft. The MTB agrees that a possible inconsistency existed by the proposed wording of § 175.320, therefore, the wording in the section is being revised in this amendment to eliminate the problem.

Another commenter stated that a reference to mass detonation in § 173.100 was not necessary in view of the 25-gram limited propagation restriction. It is the MTB's opinion that the mass detonation prohibition is needed to prevent shipments of less than 25 grams in one package when all the devices may explode simultaneously when one is initiated.

In an effort to simplify and clarify the regulations, § 173.87 has been revised. The term "with other articles" as used in this section means with articles foreign to the explosive or device packaged, other explosives with different shipping descriptions or classes, and other hazardous materials. A packaging exception is permitted for explosives (other than detonators and initiating explosives) when packaged in accordance with the requirements of this section.

Section 173.103 has been revised in an effort to clarify the specific requirements for detonators and detonating primers which are to be offered for

transportation as Class C explosives. Included in this section is a provision which allows the use of an IME Standard 22 container as an outside packaging for detonators under specific conditions. Also included in this section is a provision which details specific conditions in which detonators, Class C explosives, and detonating primers, Class C explosives, may be transported on passenger carrying aircraft. The IME has revised IME Safety Library Publication No. 22. The MTB has reviewed these revisions and concurs. Therefore, the reference in § 171.7 is being updated to reflect this latest revision.

A grandfather clause has been added in §§ 173.66 and 173.68 which allows detonators and detonating primers, which are subject to the provisions of the appropriate sections but which have been approved prior to January 1, 1980, to continue to be transported in accordance with the regulations in effect on October 31, 1979, until December 31, 1984.

In consideration of the foregoing, Title 49, Code of Federal Regulations, Parts 171, 172, 173, 174, 175, 176, 177, and 178 are amended as follows:

PART 171—GENERAL INFORMATION, REGULATIONS, AND DEFINITIONS

1. In § 171.7 paragraph (d)(9) is revised as follows:

§ 171.7 Matter incorporated by reference.

(d) * * *

(9) IME Standard 22 is titled, "IME Standard for the Safe Transportation of Class C Detonators (Blasting Caps) in a Vehicle With Certain Other Explosives," Revised March 21, 1979 (IME Safety Library Publication No. 22).

PART 172—HAZARDOUS MATERIALS TABLE AND HAZARDOUS MATERIALS COMMUNICATIONS REGULATIONS

2. Section 172.101, the Hazardous Materials Table is amended as follows:

NOTE: Please consider the underscored material, in the following Hazardous Materials Table, as being in italics.

§ 172.101 Hazardous Materials Table.

(1) a/ W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label (a) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific requirements	(a) Passenger carrying aircraft or rail car	(b) Cargo only aircraft	(a) Cargo vessel	(b) Passenger vessel	(c) Other requirements
	(Delete)									
	Blasting caps - (1,000 or less) (Show actual number)	Class C explosive	Explosive C	None	173.103	Forbidden	Forbidden	1, 2	3	Portable magazine or metal locker. Do not stow blasting caps with any high explosive. Do not handle blasting caps at the same time high explosives are being loaded.
	Blasting caps - (more than 1,000) (Show actual number)	Class A explosive	Explosive A	None	173.66	Forbidden	Forbidden	6	3	Do not stow blasting caps with any high explosive. Do not handle blasting caps at the same time high explosives are being loaded.
	Blasting caps - electric (1,000 or less) (Show actual number)	Class C explosive	Explosive C	None	173.103	Forbidden	Forbidden	1, 2	3	Portable magazine or metal locker. Do not stow blasting caps with any high explosive. Do not handle blasting caps at the same time high explosives are being loaded.
	Blasting caps - electric (more than 1,000) (Show actual number)	Class A explosive	Explosive A	None	173.66	Forbidden	Forbidden	6	3	Magazine. Do not stow blasting caps with any high ex- plosives. Do not handle blasting caps at the same time high explosiv are being loaded.

(1) o/ w/ A	(2) Hazardous materials descriptions and proper shipping name	(3) Hazard class	(4) Label (a) required (if not accepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water transport		
				(a) Exceptions	(b) Specific requirements	(a) Passenger carrying aircraft or rail car	(b) Cargo only aircraft	(a) Cargo vessel	(b) Passenger vessel	(c) Other requirements
	Blasting caps with metal clad mild detonating fuse. (1,000 or less) (Show actual number)	Class C explosive	Explosive C	None	173.103	Forbidden	Forbidden	1,2	5	Portable magazine or metal locker. Do not stow blasting caps with any high explosive. Do not handle blasting caps at the same time high explosives are loaded.
	Blasting caps with metal clad mild detonating fuse (more than 1,000) (Show actual number)	Class A explosive	Explosive A	None	173.66 173.67	Forbidden	Forbidden	6	5	Do not stow blasting caps with any high explosive. Do not handle blasting caps at the same time high explosives are being loaded.
	Blasting caps with safety fuse - (1,000 or less) (Show actual number)	Class C explosive	Explosive C	None	173.103	Forbidden	Forbidden	1,2	5	Portable magazine or metal locker. Do not stow blasting caps with any high explosive Do not handle blasting caps at the same time high explosives are being loaded.
	Blasting caps with safety fuse - (more than 1,000) (Show actual number)	Class A explosive	Explosive A	None	173.66 173.67	Forbidden	Forbidden	6	5	Do not stow blast- ing caps with any high explosive. Do not handle blasting caps at the same time high explosives are being loaded.
	Detonating primer	Class A explosive	Explosive A	None	173.68	Forbidden	Forbidden	6	5	

(1)	(2)	(3)	(4)	(5) Packing	(6) Maximum net quantity in one package	(7) Water Shipments
*/ A/ W	Hazardous materials description and proper shipping names	Hazard class	Label(s) required (if not excepted)	(a) Exceptions (b) Specific Requirements	(a) Passenger carrying aircraft or railcar (b) Cargo only aircraft	(a) Passenger vessel (b) Cargo vessel (c) Other Requirements
	(Add)					
	<u>Blasting caps. See Detonators.</u>					
	<u>Blasting caps, electric. See Detonators</u>					
	<u>Blasting caps, percussion activated. See Detonators</u>					
	<u>Blasting caps with metal clad mild detonating fuse. See Detonators</u>					
	<u>Blasting caps with detonating cord. See Detonators and detonating primers.</u>					
	<u>Blasting caps with safety fuse. See Detonators</u>					
	<u>Blasting caps with shock tubes. See Detonators</u>					
	<u>Caps, blasting. See Detonators</u>					
	<u>Detonators, Class A explosives. See 173.53</u>	Class A explosive	Explosives A	173.66	Forbidden	Do not stow detonators, Class A explosives with any high explosives. Do not handle at the same time high explosives are being loaded.
	<u>Detonators Class C explosives See 173.100</u>	Class C explosive	Explosive C	173.66	See § 173.103(d) 150 pounds	The maximum net quantity in one package for this material shipped aboard passenger vessel is limited to 50 pounds. Must be stowed in portable magazine or metal locker. Do not stow detonators, Class C explosives with high explosives. Do not handle at the same time high explosives are being loaded.
	<u>Delay connectors. See Detonators or initiating primers</u>					

(1) */ A/ W	(2) Hazardous materials description and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packing		(6) Maximum net quantity in one package		(7) Water Shipments		
				(a) Exceptions	(b) Specific Requirements	(a) Passenger carrying aircraft or railroad	(b) Cargo only aircraft	(a)* Cargo Vessel	(b) Passenger vessel	(c) Other Requirements
	Detonating primers, Class A explosives. See 173.53	Class A explosive	Explosive A	None	173.68	Forbidden	Forbidden	6	5	Do not stow detonating primers, Class A explo- sives with any high explosives. Do not handle at the same time high explosives are being loaded.
	Detonating primers, Class C explosives. See 173.100	Class C explosive	Explosive C	None	173.68	See § 173.103(d)	150 pounds	1, 2	1, 2	The maximum net quantity in one package for this material shipped aboard passenger vessel is limited to 50 pounds. Must not be stowed in portable magazine for metal locker. Do not stow detonating primers Class C explosives with high explosives. Do not handle at the same time high explosives are being loaded.

Detonators, commercial, See
Detonators

Electric blasting caps, See
Detonators

Primers, detonating, See
Detonating primers

3. In § 172.203 paragraph (c) is deleted:

§ 172.203 Additional description requirements.

(c) [Deleted]

PART 173—SHIPPERS—GENERAL REQUIREMENTS FOR SHIPMENTS AND PACKAGINGS

4. In § 173.53 the introductory text of paragraph (g) and paragraph (g)(1) are revised; paragraph (g)(2) is redesignated (g)(3); and a new paragraph (g)(2) is added; Notes 1 through 5 following paragraph (h)(1) are moved to the end of the section following paragraph (v); Note 5 is revised and a new Note 6 is added to read as follows:

§ 173.53 Definition of Class A explosives.

(g) *Type 7.* An initiating device is a metal or plastic casing containing initiating or priming explosives, Class A-Type 4, either with or without other explosives. It is activated by any one of several means, including an electrical pulse, a flame, a shock or detonation wave, mechanical impact (percussion), pressurized gas, or high intensity light beam. It produces an explosive output that may be used to initiate another explosive or to perform work. A time delay may be incorporated in the means of applying the stimulus, or in the initiating device itself.

(1) A detonator (see Note 5) is an initiating device (other than one properly described as a detonating fuze) which contains no more than 10 grams of total explosives weight, excluding ignition and delay charges per unit. There are different kinds of detonators including the following:

(i) Blasting caps which are activated by safety fuse.

(ii) Blasting caps which are percussion activated.

(iii) Blasting caps which are activated by flexible detonating cord, including—

(A) Delay connectors in plastic sheaths which consist of a plastic sleeve that contains a suitable delay system with receptor and donor explosive charges in the center portion. Each end of the sleeve is made so that flexible detonating cord can be inserted into and locked to the connector;

(B) Delay connectors in metal tubes which consist of a system with a receptor and donor charge positioned between two detonators with the entire assembly placed in a metal tube having both ends open for the insertion of flexible detonating cord;

(C) Delay connectors with detonating cord pigtailed which consist of delay

connectors as described in paragraph (g)(1)(iii)(B) of this section that have short lengths of detonating cord inserted into both ends and crimped in place; and

(D) Nonelectric instantaneous and delay caps which consist of blasting caps to which is assembled a length of detonating cord that may have a transfer explosive charge at the opposite end.

(iv) Blasting caps which are activated by gas pressurization or reaction.

(v) Blasting caps which are activated by a shock tube.

(vi) Electric blasting caps which are activated by an electric current.

(2) A detonating primer (see Note 6) is an initiation device for commercial use which contains more than 10 grams of total explosives weight, excluding ignition and delay charges per unit.

(v) * * *

Note 5.—See § 173.100(gg) for criteria that determine whether a particular type of detonator can be classed as a Class C explosive.

Note 6.—See § 173.100(hh) for criteria that determine whether a particular type of detonating primer can be classed as a Class C explosive.

5. Section 173.66 is revised to read as follows:

§ 173.66 Detonators.

(a) Unless otherwise specified in this section, detonators must be packed in accordance with the following:

(1) They must be snugly packed in strong inside packagings.

(2) Inside packagings must be snugly packed in an outside packaging specified in paragraph (e) of this section.

(3) For devices containing no more than 10 grams of explosive (excluding ignition and delay charges)—

(i) No more than 50 devices may be packed in one inside packaging;

(ii) No more than 500 devices may be packed in one outside packaging; and

(iii) The gross weight of the completed package may not exceed 150 pounds or the gross weight permitted by the specification for the outside packaging used, whichever is less.

(b) Detonators that are blasting caps (including percussion activated) or delay connectors in metal tubes, must be packed as specified in paragraph (a) of this section. In addition—

(1) They must be packed in inside packagings with the open ends of any device covered with an appropriate cushioning material;

(2) Inside packagings must be snugly packed in intermediate packagings consisting of cartons, or wrappings made of paper, plastic, or pasteboard;

(3) Intermediate packagings must be separated from the outside packaging by at least 1 inch of cushioning material; and

(4) For devices containing no more than 3 grams of explosive (excluding ignition and delay charges)—

(i) No more than 100 devices may be packed in one inside packaging; and

(ii) No more than 5,000 devices may be packed in one outside packaging.

(c) Detonators that are electric blasting caps, delay connectors in plastic sheaths, or blasting caps with empty plastic tubing must be packed as specified in paragraph (a) of this section, except that—

(1) Devices containing no more than 3 grams of explosive (excluding ignition and delay charges) may be packed as follows:

(i) No more than 100 devices may be packed in one inside packaging; and

(ii) No more than 1,000 devices may be packed in one outside packaging.

(2) Inside packaging is not required for electric blasting caps when packed in inside pasteboard tubes, or when their leg wires are wound on spools with the caps either placed inside the spool or securely taped to the wire on the spool so as to restrict freedom of movement the caps and to protect them from impact forces.

(d) Detonators that are blasting caps with safety fuse, blasting caps with metal clad mild detonating cord, blasting caps with detonating cord, or blasting caps with shock tubes, must be packed in accordance with the requirements of paragraph (a) of this section, except that—

(1) The blasting caps are not required to be attached to the safety fuse, metal clad mild detonating cord, detonating cord, or shock tube; and

(2) Inside packagings are not required if the packing configuration restricts freedom of movement of the caps and protects them from impact forces.

(e) Detonators with or without inside packaging as provided for in paragraphs (a) through (d) of this section, must be packed in the following outside packagings.

(1) DOT Specification 14, 15A, or 16A (§§ 170.165, 170.163, 170.185 of this subchapter) wooden box.

(2) DOT Specification 12H, 23F, or 2311 (§§ 170.209, 170.214, 170.219 of this subchapter) fiberboard box.

(f) Each outside packaging containing detonators must be plainly marked "DETONATORS—HANDLE CAREFULLY" and bear the appropriate explosives label specified in § 172.411 of this subchapter.

(g) Devices subject to this section which have been approved by an

agency listed in § 173.86(b) before January 1, 1980, may be transported subject to the conditions of the approval and in accordance with the regulations in effect on October 31, 1979, until December 31, 1984.

§ 173.67 [Deleted]

6. Section 173.67 is deleted.

7. Section 173.68 is revised to read as follows:

§ 173.68 Detonating primers.

(a) Detonating primers that are blasting caps with detonating cord, and delay connectors with detonating cord pigtailed, must be packed in accordance with the following:

(1) They must be snugly packed in inside packagings;

(2) Inside packagings must be snugly packed in an outside packaging specified in paragraph (d) of this section;

(3) No more than 50 devices may be packed in one inside packaging;

(4) No more than 500 devices may be packed in one outside packaging; and

(5) The gross weight of the completed package may not exceed 150 pounds or the maximum gross weight permitted by specification for the outside packaging used, whichever is less.

(b) Detonating primers that are blasting caps with detonating cord in a coil configuration must be packed as specified in paragraph (a) of this section, except the use of inside packaging is not required if the packing configuration restricts movement of the caps and protects them from impact forces.

(c) All other unspecified types of detonating primers may only be offered for transportation if they are packed in accordance with the requirements of paragraph (a) of this section, except that inside packagings are not required for devices that are packed in individual pasteboard, metal, plastic, or wooden tubes.

(d) Detonating primers, with or without inside packagings, as provided for in paragraphs (a) through (c) of this section, must be packed in one of the following outside packagings:

(1) DOT specification 14, 15A, or 16A (§§ 178.165, 178.168, 178.185 of this subchapter) wooden box.

(2) DOT specification 12H, 23F, or 23H (§§ 178.209, 178.214, 178.219 of this subchapter) fiberboard box.

(e) Each outside packaging of detonating primers must be plainly marked "DETONATING PRIMERS—HANDLE CAREFULLY" and must bear the appropriate label specified in § 172.411 of this subchapter.

(f) Devices subject to this section, which have been approved by an

agency listed in § 173.86(b) before January 1, 1980, may be transported subject to the conditions of the approval and in accordance with the regulations in effect on October 31, 1979, until December 31, 1984.

8. Section 173.87 is revised to read as follows:

§ 173.87 Explosives in mixed packaging.

Unless specifically authorized by Parts 110-189 of this subchapter, explosives may not be packed in the same outside packaging with other articles. Inside packages of different explosives (except detonators and initiating explosives) may be packed in one outside packaging in accordance with the requirements of this subchapter if the gross weight of each inside package does not exceed 8 ounces and the gross weight of the completed package does not exceed 50 pounds.

9. In § 173.100 paragraph (bb) is amended by deleting the words "or commercial users" in the third sentence; paragraphs (gg), and (hh) are added to read as follows:

§ 173.100 Definition of Class C explosives.

(gg) Detonators (§ 173.53(g)(1)), which will undergo only limited propagation in the shipping package, are classed as Class C explosives. For the purposes of this paragraph, limited propagation means that if one detonator near the center of a shipping package is exploded, the aggregate weight of explosives, excluding ignition and delay charges, in this and all additional detonators in the outside packaging that explode may not exceed 25 grams. Detonators which mass detonate in the shipping package may not be classed as Class C explosives. For the purposes of this paragraph "mass detonate" means that more than 90 percent of the devices tested in a package explode practically simultaneously.

(hh) Detonating primers (§ 173.53(g)(2)) in which the total explosive charge per unit does not exceed 25 grams, and which will undergo only limited propagation in the shipping package, are classed as Class C explosives. For the purposes of this paragraph, limited propagation means that if one detonating primer near the center of a shipping package is exploded, the aggregate weight of explosives, excluding ignition and delay charges, in this and all additional detonating primers in the outside packaging that explode may not exceed 25 grams. Detonating primers which mass detonate in the shipping package may not be classed as Class C explosives. For the purposes of this

paragraph, "mass detonate" means that more than 90 percent of the devices tested in a package explode practically simultaneously.

10. Section 173.103 is revised to read as follows:

§ 173.103 Detonators, Class C explosives, and detonating primers, Class C explosives.

(a) It must be shown by actual tests that detonators and detonating primers which are to be offered for transportation as Class C explosives meet the appropriate definitions in paragraphs (gg) and (hh) in § 173.100. Testing must be performed or confirmed and the classification approved as specified in § 173.86. Substitution of a representative packaging in place of the actual shipping package for testing purposes may be authorized by one of the agencies specified in § 173.86(b).

(b) Detonators, Class C explosives, and detonating primers, Class C explosives, may only be offered for transportation if they are packed in packagings specified in §§ 173.66 and 173.68 that meet the requirements of paragraph (a) of this section, except that quantity limitations for devices in packagings (other than the gross weight limitation for the specification packaging used) do not apply.

(c) Detonators originally classed as Class C explosives in accordance with the requirements of paragraph (a) of this section, may be offered for transportation in an IME Standard 22 container as Class C explosives subject to the following conditions:

(1) Each detonator may contain no more than 1 gram of explosive (excluding ignition and delay charges);

(2) The detonators must be packed in accordance with the requirements and limitations of § 173.66, except paragraphs (a)(3) (ii) and (iii), and paragraph (e); and

(3) There are no more than 1,000 detonators in the container.

(d) Detonators, Class C explosives, and detonating primers, Class C explosives, may be offered for transportation on passenger-carrying aircraft only under the following conditions:

(1) They must be packed in accordance with the applicable requirements of §§ 173.66 and 173.68 except that the maximum gross weight of any completed package may not exceed 50 pounds or the maximum gross weight permitted by the specification for the outside packaging used, whichever is less; and

(2) Packages must have been tested in accordance with the requirements of paragraph (a) of this section, except that when one device near the center of the

package is detonated, no other device in the package may be caused to detonate and there must be no communication of detonation from one package to another.

PART 174—CARRIAGE BY RAIL

11. In § 174.81 paragraph (a), the table is amended by deleting the heading "Blasting caps, with or without safety fuse (including electric blasting caps), detonating primers" in the fourth entry of both vertical and horizontal columns and substituting therefor "Detonators, detonating primers"; footnotes a and e are revised to read as follows:

§ 174.81 Segregation and separation requirements for hazardous materials in rail cars.

(a) * * *

^a Detonators, Class C explosives, may also be loaded and transported with articles named in vertical and horizontal columns 3, 9, 10, 11, 12, and 13. Loading and transportation of detonators or detonating primers, in any quantity, with articles named in vertical or horizontal columns b, c, e, or f are prohibited.

* * * * *

^e Does not include blasting agents, ammonium nitrate-fuel oil mixtures, or ammonium nitrate, fertilizer grade, which may be loaded, transported, or stored with high explosives, or with detonators containing no more than 1 gram of explosive each, excluding ignition and delay charges.

* * * * *

12. In § 174.101 the first sentence of paragraph (h) is amended; paragraph (m) is deleted as follows

§ 174.101 Loading explosives.

* * * * *

(h) Package containing any Class A explosives (see § 174.104), detonators or detonating primers must be securely blocked and braced to prevent the packages from changing position, falling to the floor, or sliding into each other, under conditions normally incident to transportation. * * *

* * * * *

(m) [Deleted]

* * * * *

13. In § 174.106 paragraphs (a) and (b) are revised to read as follows:

§ 174.106 "Order-Notify" or "C.O.D." shipments, Class A explosives.

(a) A carrier may not accept for transportation Class A explosives, detonators, or detonating primers in any quantity when consigned to "order-notify" or "C.O.D.," except on a through bill of lading to a place outside the United States.

(b) A carrier may not accept for transportation Class A explosives, detonators, or detonating primers which the shipper consigns to himself unless the shipper has a resident representative to receive them at the delivery point.

* * * * *

14. In § 174.115 paragraph (a) is revised to read as follows:

§ 174.115 Loading Class C explosives.

(a) Class C explosives may be loaded into any closed car in good condition, or into any container car in good condition. Car certificates are not required. Packages of Class C explosives must be blocked and braced to prevent their movement and possible damage due to movement of other freight during transportation. For methods of recommended loading and bracing, see Bureau of Explosives Pamphlet No. 6.

* * * * *

PART 175—CARRIAGE BY AIRCRAFT

15. In § 175.320 paragraph (a), the Table is revised by deleting the entire first two entries entitled "Electric blasting caps (more than 1,000)" and "Electric blasting caps (1,000 or less)" and replacing those entries as follows:

§ 175.320 Cargo-only aircraft; only means of transportation.

(a) * * *

Material description	Class	Conditions
Detonators and detonating primers	Class A explosives	Permitted only when no other hazardous material is aboard the aircraft.
Detonators and detonating primers	Class C explosives	Permitted only when there are no Class A explosives aboard aircraft.

* * * * *

PART 176—CARRIAGE BY VESSEL

16. In § 176.9 the introductory text of

paragraph (a) is revised to read as follows:

§ 176.9 "Order-Notify" or "C.O.D." shipments.

(a) A carrier may not transport Class A explosives, detonators, or detonating primers which are—

* * * * *

§ 176.83 [Amended]

17. In § 176.83, paragraph (a) Table 1 is amended by deleting the words "blasting caps, with or without safety fuse (including electric blasting caps)"; in the fourth entry of both the vertical and horizontal columns and in place thereof adding the word "detonators."

18. In § 176.105 the first sentence of paragraph (d) is revised to read as follows:

§ 176.105 Loading and unloading explosives.

* * * * *

(d) Detonators, detonating primers, detonating fuzes, fulminate of mercury, and other initiating or priming explosives defined in this subchapter constitute distinct types of explosives. * * *

* * * * *

19. In § 176.177 paragraphs (c) and (d) are revised to read as follows:

§ 176.177 Magazine vessels.

* * * * *

(c) *Location of explosives.* Class A and Class B explosives, in excess of 5,000 pounds, stored in any magazine vessel must be stowed below deck. No explosive may be stowed on deck unless the vessel is fitted with a deck house having a stowage area which meets the requirements in this subpart for the stowage of explosives. Detonators, Class A explosives, and detonating primers, Class A explosives, may not be stored on the same magazine vessel with other Class A explosives or Class B explosives.

* * * * *

(e) *Initiating explosives, detonators and detonating primers.* No initiating or priming explosive may be stowed in the same compartment with any other explosive when there is any high explosive on the same magazine vessel. Detonators and detonating primers must be stowed at least 25 feet from any bulkhead forming a boundary of a compartment containing any other explosives.

* * * * *

PART 177—CARRIAGE BY PUBLIC HIGHWAY

20. In § 177.835 the introductory text of paragraph (g), paragraphs (g)(2) (i) and (m) are revised to read as follows:

835 Explosives.

(g) No detonating primer may be transported on the same motor vehicle with any Class A or Class B explosive (except detonating primers). No detonator may be transported on the same motor vehicle with any Class A or Class B explosive (except detonators) unless—

(2) * * *

(i) The detonators are in packagings as prescribed in § 173.66 of this subchapter which in turn are loaded into suitable containers or separate compartments. Both the detonators and the container or compartment must meet the requirements of the Institute of Makers of Explosives Standard (IME Safety Library Publication No. 22).

(m) *Detonators or other explosives.* Any explosive, including desensitized liquid explosives as defined in § 173.53(e) of this subchapter, other than liquid nitroglycerin, desensitized nitroglycerin or diethylene glycol dinitrate, transported on any motor vehicle transporting liquid nitroglycerin, desensitized liquid nitroglycerin or diethylene glycol dinitrate, must be segregated, each kind from every other kind, and from tools or other supplies. Detonators must be packed in specification MC 201 (§ 178.318 of this subchapter) containers.

21. In § 177.848 paragraph (a), the table is amended by deleting the words "blasting caps, with or without safety fuse (including electric blasting caps),"

in the fourth entry of both the vertical and horizontal columns and in place thereof adding the word "detonators"; footnotes a and e are revised to read as follows:

§ 177.848 Loading and storage chart of hazardous materials.

(a) * * *

* Detonators, Class C explosives, may also be loaded and transported with articles named in vertical and horizontal columns 3, 9, 10, 11, 12, and 13. Loading and transportation of detonating primers, or detonators, except as prescribed in § 177.835, in any quantity with articles named in vertical or horizontal columns b, c, e, or f is prohibited.

* Does not include blasting agents, ammonium nitrate-fuel oil mixtures, or ammonium nitrate, fertilizer grade, which may be loaded, transported or stored with high explosives, or with detonators, containing not more than 1 gram of explosive each, excluding ignition and delay charges.

22. In § 177.870 paragraph (d) is revised to read as follows:

§ 177.870 Regulations for passenger carrying vehicles.

(d) *Hazardous materials on passenger carrying vehicles; quantity.* Where no other practicable means of transportation are available, the following articles in the quantities as shown may be transported in motor vehicles carrying passengers for hire in a space other than that provided for passengers: Not to exceed 100 pounds gross weight of any

or all of the kinds of explosives permitted to be transported by passenger-carrying aircraft or rail car may be transported on a motor vehicle transporting passengers. *Provided, however,* That samples of explosives for laboratory examination, not to exceed two samples, or a total of no more than 100 detonators, Class C explosives at one time in a single motor vehicle, may be transported in a motor vehicle transporting passengers.

PART 178—SHIPPING CONTAINER SPECIFICATIONS

§ 178.318 [Amended]

23. In § 178.318 the Heading, the first sentence of §§ 178.318-(a), and 178.318-2 (a) and (b) are amended by deleting the words "blasting caps, electric blasting caps" and replacing them with the word "detonators."

(49 U.S.C. 1803, 1804, 1808; 49 CFR 1.53 and App. A to Part 1)

Note.—The Materials Transportation Bureau has determined that this final rule will not result in a major economic impact under the terms of Executive Order 12044 and DOT implementing procedures (44 FR 11034) nor require an environmental impact statement under the National Environmental Policy Act (49 U.S.C. 4321 et seq.). A regulatory evaluation is available in the docket.

Issued in Washington, D.C., on November 30, 1979.

L. D. Santman,

Director, Materials Transportation Bureau.

[FR Doc. 79-37612 Filed 12-7-79; 8:45 am]